

WE CLAIM:

1. A non-transgenic mouse mammary adenocarcinoma cell line derived from a murine progestin-dependent CC4-HD tumor, wherein the cell line expresses estrogen and progesterone receptors.
- 5 2. The non-transgenic mouse mammary adenocarcinoma cell line of claim 1, wherein the cell line is MC4-L1 or MC4-L3.
3. A non-transgenic mouse mammary adenocarcinoma cell line derived by subcloning a MC4-L1 cell line.
4. The cell line of claim 3, wherein the cell line is MC4-L2.
- sub 10 5. A non transgenic mouse mammary adenocarcinoma cell line derived from a murine progestin-independent C7-HI tumor, wherein the cell line expresses estrogen and progesterone receptors.
6. The non transgenic mouse mammary adenocarcinoma cell line of claim 5, wherein the cell line is MC7-L1.
- sub 15 7. A non-transgenic mouse mammary adenocarcinoma cell line system for testing the activity of a hormone, an anti-hormone, a pharmacological compound and an environmental agent, wherein the system comprises a cell line selected from the group consisting of MC4-L1, MC4-L3, MC4-L2, and MC7-L1.
- 20 8. An *in vitro* method for testing the activity of a hormone, an anti-hormone, a pharmacological compound or an environmental agent, comprising the steps of:
- cultivating a cell line system, wherein the cell line system comprises

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a MC7-L1 cell line derived from a murine progestin-independent C7-HI tumor, wherein the cell line expresses estrogen and progesterone receptors;

5 a MC4-L3 cell line derived from a murine progestin-dependent CC4-HD tumor, wherein the cell line expresses estrogen and progesterone receptors;

a MC4-L2 cell line derived by subcloning a MC4-L1 cell line; or,

10 a MC4-L1 cell line derived from a murine progestin-dependent CC4-HD tumor, wherein the cell line expresses estrogen and progesterone receptors.

exposing the cell line system to the hormone, the anti-hormone, the pharmacological compound, or the environmental agent; and

quantifying cell proliferation.

9. An *in vivo* method for testing the activity of a hormone, an anti-hormone, a pharmacological compound, and an environmental agent, comprising the steps of:
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inoculating each cell line system into a syngeneic mouse;

20 treating mice bearing tumors of about 50mm<sup>2</sup> with the hormone, the anti-hormone, the pharmacological compound, or the environmental agent; and

analyzing tumor growth, tumor regression, number of metastases and prolongation and survival.

10. The method of claim 9, wherein ~~the~~ cell line is selected from the group consisting of MC4-L1, MC4-L3, MC4-L2, or MC7-L1.

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5 11. A kit for determining the effect of a hormone, anti-hormone, pharmacological compounds and environmental agents, wherein the kit comprises an aliquot, a cell line, and a method for evaluating the proliferation of cells.

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12. The kit of claim 11, wherein the cell line is selected from the group consisting of MC4-L1, MC4-L3, MC4-L2, or MC7-L1.

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